

Appln No. 10/779,467
Amdt date February 29, 2008
Reply to Office action of November 29, 2007

Amendments to the Drawings:

The attached drawing sheet includes changes to FIG. 6. This sheet, replaces the original sheet 10, including FIG. 6.

Attachment: Replacement Sheet
 Annotated Sheet Showing Changes

REMARKS/ARGUMENTS

Claims 1-29 are pending in the present application, of which claims 4, 6, 8, 9, 13 and 28 have been withdrawn from consideration.

The drawings have been objected to for not showing a toothed zone mesh as recited in claim 15. Applicants have amended FIG. 6 to show the toothed zone mesh with reference number 47. Furthermore, Applicants have amended the Specification to include reference number 47 of the toothed zone mesh as recited in claim 15. Applicants request withdrawal of this objection.

Claims 1-3, 5, 7, 10-12, 14-24, 26 and 27 have been rejected under 35 U.S.C. 103 (a) over Billen (US 6,412,357) in view of Eubank (US 4,979,773). Claim 1 recites an at least partially hollow cylindrical drive element pivotably connected to the seat element, the drive element comprising a component of a displacement arrangement for an adjustable part of the motor vehicle seat. On page 4 of the Office action, the Examiner states that "Eubank shows a seat assembly similar to that of Billen wherein the seat assembly has a seat element 48 (see Fig. 2) that is a component of a seat structure of a motor vehicle seat, a cylindrical element 58 pivotably connected to the seat element and being a component of a displacement arrangement for an adjustable part of the seat." The Examiner then asserts that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the seat assembly of Billen such that the at least partially hollow cylindrical drive element is capable of pivot connection to the seat element and the drive element comprises a component of a displacement arrangement for an adjustable part of the motor vehicle seat, such as the seat assembly disclosed by Eubank." Applicants traverse this rejection and submit that one of ordinary skill in the art would not have combined Billen with Eubank, because such a combination would destroy the function of Billen and would provide a mechanically unstable connection.

Referring to FIG. 4 of Billen, the lower frame 212 is fixed from rotation and the journal bearing 220 is fixed to the lower frame 212. Thus, both the lower frame 212 and the journal bearing 220 are fixed from rotation. Because of this rotationally fixed arrangement, the reduced diameter section 230 of the journal 218 can only move vertically in the vertical guide slot 225 as shown in FIG. 5 of Billen. Accordingly, the journal 218 exerts only a vertical force F (shown in FIG. 4) on the spring 222, which has a strain gauge for measuring the force F . (See Billen, col. 6, lines 20-33).

Referring to FIG. 2 of Eubank, the rear link 48 is pivotally mounted to the trunnion 38 with a pivot pin 58. On page 4 of the Office action, the Examiner states that the device of Billen could have been modified with the device of Eubank such that "the partially hollow cylindrical drive element is capable of pivot connection to the seat element." Accordingly, with reference to FIG. 2 of Billen, the Examiner suggests modifying the device of Billen so that the journal bearing 220 is pivotable. However, Applicants submit that such a combination would destroy the function of Billen and provide a mechanically unstable connection.

Referring to FIG. 5 of Billen, which is shown below on the left and modified by Applicants to show the vertical force F , the weight of a seat's occupant is detected through the vertical force F exerted on the spring element 222.

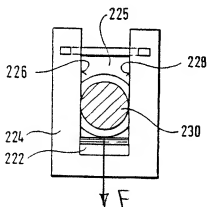


FIG. 5

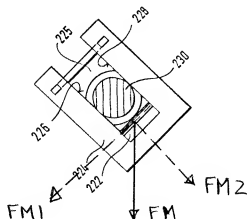


FIG. 5 of Billen is again reproduced above on the right and modified by Applicants to show the modification of Billen as suggest by the Examiner. If the journal bearing 220 of Billen is modified to be pivotable, the journal 218 would no longer exert a vertical force F on the spring element 222, but would exert a modified force FM . The force FM can be represented by components $FM1$ and $FM2$. As shown above by the right side modified FIG. 5 of Billen, the spring element 222 would only experience the force component $FM2$, which is less than the force FM , and therefore, less than the weight of the occupant of the seat. As a result, the device of Billen would no longer be able to correctly measure the weight of the occupant. For the device of Billen to work properly, both the lower frame 212 and the journal bearing 220 would have to be fixed and the journal would have to be restricted to only vertical movement. As described above, the fixed arrangement of the journal bearing 220 and the lower frame 212 provide only vertical movement of the reduced diameter section 230 of the journal 218 in the vertical guide slot 225. Therefore, Applicants submit that one of ordinary skill in the art would not have combined Eubank with Billen, because such a combination would destroy the function of Billen.

Furthermore, as discussed above, when the weight of a seat's occupant is passed as force F through the journal 218, the journal 218 moves vertically in the guide slot 225 to press down on the spring element 222. Accordingly, with a person sitting in the seat, the weight of the person prevents the journal 218 from additional vertical movement and provides a stable mechanical connection. However, if the journal bearing 220 were to pivot as the Examiner suggests, the guide slot 225 would assume an orientation other than vertical, which would cause the journal 218 to move around or wobble in the guide slot 225. For example, if the guide slot 225 were to rotate to a horizontal orientation, the journal 218 would horizontally move in the guide slot 225 even when a person is sitting in the seat. Accordingly, such wobbling or movement of the journal 218 would cause mechanical instability for the seat. Therefore, Applicants submit that one of ordinary skill in the art would not have combined Eubank with Billen, because such a combination would provide a mechanically unstable connection.

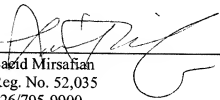
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For the foregoing reasons, Applicants believe that claims 1-3, 5, 7, 10-12, 14-24, 26 and 27 are patentable over Billen in view of Eubanks.

Claims 25 and 29 have been rejected under 35 U.S.C. 103 (a) as being unpatentable over Billen in view of Eubanks as applied to claims 1-3, 5, 7, 10-12, 14-24, 26, and 27, and further in view of US Publication No. 2003/0067196 A1, Sakamoto, et al. As described above, because claim 1 is patentable over Billen in view of Eubanks, Applicants believe that claims 25 and 29 are patentable over Billen, Eubanks and Sakamoto, et al.

Applicants believe that the claims are now in condition for allowance.

Respectfully submitted,
CHRISTIE, PARKER & HALE, LLP

By 
Saeid Mirsafari
Reg. No. 52,035
626/795-9900

SM/mr

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FIG 6

